DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC 20350-2000

IN REPLY REFER TO
OPNAVINST 2400.20E
Op-941F

19 JAN 1989

OPNAV INSTRUCTION 2400.20E

From: Chief of Naval Operations

Subj: NAVY MANAGEMENT OF THE RADIO FREQUENCY SPECTRUM

Ref: (a) DOD DIR 4650.1 of 24 Jun 87 (NOTAL)
(b) ACP 190 US SUPP-1(B) (NOTAL)
(c) NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management (NOTAL)
(d) USMCEB-M-006-83(C) (NOTAL)
(e) USMCEB-M-187-87(R) (NOTAL)
(f) OPNAVINST 2450 (NOTAL)
(g) NTP-6(B) (NOTAL)
(h) OPNAVINST 3430.9C (NOTAL)
(i) DOD FAR Supplement 35.071(E) and 52.235-7004 (NOTAL)
(j) OPNAVINST 3430.18D (NOTAL)
(k) OPNAVINST 2400.7F (NOTAL)

Encl: (1) List of Abbreviations and Acronyms
(2) Procedures for Obtaining Frequency Allocations within the Department of the Navy
(3) DON Frequency Coordinators for U.S.

1. Purpose. To establish policy to implement reference (a) concerning use of the radio frequency electromagnetic spectrum within the Department of the Navy (DON), to provide specific guidance and task assignments, and to renumber the instruction following current Standard Subject Identification Codes. This instruction has been substantially revised and should be read in its entirety.

2. Cancellation. OPNAVINST 2400.20D, OPNAVINST 2410.11H, and OPNAVINST 5400.29A.

3. Scope. This instruction applies to all United States Navy (USN) and United States Marine Corps (USMC) commands and activities, both active and reserve, involved in the research, development, procurement, or operation of communications-electronics (C-E) equipment which transmit or receive electromagnetic radiation. It specifies mandatory actions that are prerequisite to obligating or expending funds for C-E systems.

4. Definitions. Abbreviations and acronyms used in this instruction are explained in enclosure (1). Terms used in this instruction are defined as follows:

a. Electro-optics. Those systems and devices which employ a useful combination of optics and electronics for which the carrier wavelength is 0.1 to 100 micrometers (3000 GHz-3000 THz or 3×10^{12} Hertz to 3×10^{15} Hertz).

b. Frequency Allocation

(1) A frequency band established by national or international rules and regulations for specific categories of radio services, such as radiolocation, radionavigation, mobile or fixed communications, space telemetry, etc.

(2) As used in this instruction, the acknowledgement by Chief of Naval Operations (CNO) that development and/or procurement of C-E equipment can be supported for operation on a specific frequency or band of frequencies within the radio frequency spectrum.

c. Frequency Assignment. The discrete frequency or frequencies on which C-E equipment or a system is authorized to operate within its allocated frequency band at the location(s) designated and within the constraints of the authorizing assignment.

d. Radio Frequency (RF). A general term applied to electromagnetic frequencies below 3000 GHz (3×10^{12} Hertz).

e. Communications-Electronics (C-E). The specialized field concerned with the use of electronic devices and systems for the acquisition or acceptance, processing, storage, display, analysis, protection, disposition, and transfer of information. In this instruction, C-E systems include communications, radar, navigation, and all other systems which use the electromagnetic spectrum.

f. Waiver. A formal approval, usually written, relinquishing certain construction or performance requirements. In this instruction, waiver refers to the replacement or procurement of electromagnetic radiating or receiving equipment that deviate from the technical characteristics or service band allocations specified in national regulations and policies and in international regulations and treaties.

5. Policy

a. Frequency Allocations

(1) Applications for frequency allocations shall be initiated by developers or procuring organization as soon as RF bands of operation are identified, updated for each stage of the system life cycle, and updated again whenever significant changes

are planned in system electromagnetic radiating characteristics or operational use.

(2) Funds shall not be obligated for the development, production, or procurement of C-E equipment beyond the conceptual Stage One until a frequency allocation for the equipment has been approved by the CNO.

(3) Waiver authority for electromagnetic compatibility (EMC) requirements resides in the CNO. Systems Command (SYSCOM) commanders are authorized to exercise waiver authority for cognizant systems when analyses and/or test data indicate that there is no resultant impact on operational capability or on national or international regulations or treaties.

(4) Allocation applications are not required for electro-optics, for fuze development per reference (b), for low power equipment as defined in reference (c), or for nontactical and intrabase radios as defined in USMCEB-M-549-78.

b. Frequency Assignments

(1) Frequency assignment requests shall be initiated by system developers or testers as soon as a frequency allocation is obtained and test site data is known. Frequency assignments for operational and/or training use will be requested by field personnel as soon as mission or exercise planning has specified locations and other pertinent operational data.

(2) C-E transmitting equipment shall not be activated, for any purpose, without both a frequency allocation and a frequency assignment.

(3) Guidance for joint/combined operations, including frequency assignment/control and satellite use, is provided in references (b) and (d). The Joint Frequency Panel (JFP) retains assignment authority for commonality of netting frequencies, for control of international actions, and for control of satellite communications.

6. Procedures

a. Frequency Allocations

(1) The frequency allocation process begins with the submission of an Application For Equipment Frequency Allocation (DD Form 1494) via the chain of command to the CNO (see enclosure (2) for an explanation). To ensure spectrum supportability, the developer/procurer is required to request approval of a new or updated frequency allocation as early as possible during the concept

formulation (Stage One) and the demonstration and validation (Stage Two) of equipment acquisition. CNO approval of frequency allocation requests must be obtained before assuming contractual obligations for full-scale development (Stage Three), production/operational (Stage Four), or procurement of those systems. That policy also applies to modifications of systems in the operational inventory, particularly if parameters that are pertinent to the DD Form 1494 have been altered.

(2) Normally, frequencies of operation for new equipment or systems are selected from bands allocated to the appropriate radio service or to similar systems. In certain cases, after due consideration for the protection of existing primary services and of the possible operational restrictions to the newly developed equipment, the developer may propose other frequency bands for operation. In such extraordinary circumstances, operational, technical, and economic justification must be provided with the allocation application. Technical justification must demonstrate that the proposed system will not degrade the electromagnetic compatibility of the current environment. Proposed out-of-band systems will always have secondary status and may only operate on a not-to-interfere basis (NIB) to established services. However, nothing in this instruction is intended to impede research toward the development of C-E systems that are necessary to increase the combat effectiveness of the USN or USMC.

(3) The DD 1494 has a separate page for data needed for foreign coordination if the equipment is to be used outside of the United States and Possessions (US&P). That page must be completed by the developing command before coordination can be initiated.

(4) All military frequency allocations are coordinated among the military services prior to approval. The coordination is accomplished by CNO through the Military Communications-Electronics Board (MCEB), per reference (e). Such coordination also provides data to the DOD equipment characteristics files maintained by the Department of Defense (DOD) Electromagnetic Compatibility Analysis Center (ECAC). These data are available to USN and USMC activities, upon request, from the Navy (CN) or Marine Corps (CM) Deputy Directors, ECAC.

(5) Activities originating applications for frequency allocations are required to ensure that electromagnetic compatibility (EMC) is adequately considered for their equipment (reference (f) provides policy for EMC within the DON). An operational Stage Four frequency allocation application must include references to evaluations and/or tests demonstrating that the proposed system has been reviewed and analyzed to ensure EMC in its intended environment.

(6) Requests for waiver of EMC requirements which impact operational capability or national or international regulations or treaties shall be submitted with supporting analyses and/or test data to CNO (OP-094) for approval.

(7) Procedures for submission of frequency allocation applications are outlined in enclosure (2) and detailed in reference (g).

b. Frequency Assignments

(1) Frequency assignments are authorized for use during material development stages in an interactive process, since assignments for use during Stages Two and Three are for a limited time and area. Any change to an operational system which alters its electromagnetic radiations or locations requires a modified frequency assignment, as explained in reference (g).

(2) Commands, bases, ranges, and laboratories within the US&P coordinate frequency assignment matters through the appropriate DON area frequency coordinators, listed in enclosure (3), who forward frequency assignment requests to the Naval Electromagnetic Spectrum Center (NAVEMSCEN).

(3) Frequency assignment authorizations for electronic countermeasure (ECM) operations in the United States and Canada are established for U.S. military units on a standing basis for selected bands. They are used for each individual operation only after special coordination. Authority, restrictions, and detailed coordination procedures, for use of radio frequency bands for ECM operations, are contained in reference (h).

(4) USN and USMC activities are authorized to use radio frequencies within the United States and Possessions (US&P) per assignments sanctioned by the Director, Naval Electromagnetic Spectrum Center (NAVEMSCEN), under the Commander, Naval Telecommunications Command (COMNAVTELCOM). NAVEMSCEN obtains approval of frequency assignments for the USN and USMC from the Frequency Assignment Subcommittee (FAS) of the Interdepartment Radio Advisory Committee (IRAC) of the National Telecommunications and Information Administration (NTIA). Procedures used are per USMCEB directions and references (c) and (g).

(5) Unified commanders authorize use of frequencies assigned in their geographical areas, including US&P, per references (b) and (d). USN and USMC use of frequencies within a unified command area of cognizance is coordinated through Fleet Commanders in Chief (CINCs) or their designated representatives. DON coordination of unified command assignments is through the Joint Frequency Panel (JFP) of the MCEB.

(6) Fleet CINCs ensure the coordination, authorization, and use of assigned radio frequencies within the fleet, and ensure appropriate coordination with unified or specified commanders.

(7) Commanders of USN and USMC installations manage the use of assigned radio frequencies within their installations and:

(a) Designate a base or station radio frequency manager to serve as a central point of contact for all frequency use.

(b) Include provisions for the use of radio frequencies by a tenant activity housed within a USN or USMC installation in a host-tenant agreement. Such agreements include specific authority for the commander of the installation to require the tenant activity to cease or modify operation on a specific frequency or to change frequencies, should the need arise.

7. Responsibilities

a. Spectrum Management. CNO spectrum management responsibilities are exercised by the Director, Space, Comand and Control, OP-094. Under OP-094, the Director, Naval Communications Division, OP-941, provides overall policy guidance and direction to the DON in radio frequency spectrum management, and is responsible for:

(1) Determining current and future RF requirements and developing plans to accommodate USN and USMC C-E equipment and systems within appropriate portions of the RF spectrum.

(2) Coordinating joint, national, and international spectrum management policy.

b. Frequency Allocations

(1) The CNO, Director, Naval Communication Division (OP-941), is responsible for:

(a) Ensuring review, coordination, and approval of all Applications for Frequency Allocation (DD Form 1494, S/N 0102-LF-001-4941) submitted by activities of the DON through the MCEB. That also includes coordination and submission of space, radar, and other selected major C-E systems, including extensive modification of nationally approved systems, to the Spectrum Planning Subcommittee (SPS) of the IRAC for review and determination of spectrum supportability at the national level.

(b) Exercising overall authority for EMC waivers. Waivers with adverse force-level impact, including assessment and recommendation, are forwarded to the Warfare Requirements Board, for their recommendation.

(c) Providing the principal Navy member to the JFP.

(2) The Commanders of the Systems Commands shall ensure that frequency allocation applications required by reference (i) are submitted by their commands and subordinate activities as specified in paragraph 6.a above, and shall establish safeguards to ensure that an approved frequency allocation is obtained before assuming contractual obligations for full-scale development, production, or procurement of any C-E equipment. All requests for waiver of EMC requirements which impact operational capability shall be submitted to CNO (OP-941).

(3) The Commandant of the Marine Corps; the Commander, Naval Military Personnel Command; the Commander, Naval Medical Command; the Commander, Naval Telecommunications Command; and the Chief of Naval Research shall ensure that frequency allocations required by reference (i) are obtained by activities subordinate to their commands, prior to development or procurement of C-E equipment.

(4) The Commander, Naval Telecommunications Command, shall maintain reference (g) as a manual of procedures for submission of requests for frequency allocations and assignments, and shall provide advice and assistance to the CNO in the frequency allocation process.

c. Frequency Assignments

(1) The Commander, Naval Telecommunications Command, shall exercise frequency assignment authority for the DON; shall provide DON representation as requested by CNO (Director, Naval Communications Division, OP-941) in the joint, national, and international arenas; shall resolve interference conditions correctable by frequency reassignment within the DON; and shall:

(a) Procure, coordinate, register, assign, and protect radio frequencies for test and operational use of C-E equipment and systems employed by DON and USMC commands and activities.

(b) Investigate reports of harmful interference involving frequency problems reported per reference (h), to or from USN and USMC C-E systems and shall initiate eliminative/mitigative action in resolution thereof.

(c) Develop, publish, and maintain a manual (reference (g)) of procedures for spectrum management and the coordination of frequency assignment actions within the DON, to be distributed to major shore commands, frequency coordinators, and other requesting activities with a need for it.

(d) Maintain frequency assignment records, and periodically review frequency assignments coordinated and made by the DON frequency coordinators listed in enclosure (3).

(2) Commands developing or using systems/equipment shall ensure that frequency assignments are coordinated and/or requested as indicated here and in reference (g) as soon as a frequency allocation has been obtained and test or operational site details are known.

(3) The Joint Frequency Management and Spectrum Engineering Office Atlantic (JFMO LANT) at Norfolk, VA, has been chartered by Commander in Chief, U.S. Atlantic Command (USCINCLANT) to perform RF management and spectrum engineering for USCINCLANT, Commander in Chief, U.S. Atlantic Fleet (CINCLANTFLT), and Naval Communications Area Master Station, Atlantic (NAVCAMSLANT). That includes assistance to fleet commanders in day-to-day coordination of fleet frequency assets. JFMO LANT also has responsibility for the coordination and use of USN and USMC frequency requirements in Minnesota, Iowa, Kansas, Oklahoma, Texas, and all states eastward.

(4) The DON AFC for the Middle Atlantic (MIDLANT AFC), Patuxent River, MD, is responsible for the coordination of designated frequency bands within the area of the eastern United States and the Atlantic Ocean south of 41° N; east of a line starting at the intersection of 41° N and 75° 30' W running southwest to the intersection of 33° 30'N and 83° W; north of 31° 30' N; and west of 68° 40' W and reports to JFMO LANT for this function.

(5) The DON AFC, Puerto Rico at the Atlantic Fleet Weapons Training Facility (AFWTF), Roosevelt Roads, PR, is responsible for the coordination of frequencies for the Navy in and around Puerto Rico, and reports to JFMO LANT for that function. In addition, the Commander, AFWTF, Roosevelt Roads, serves as the DOD AFC Puerto Rico, providing staff and technical support for frequency assignments at the test/training range, for a 200-mile radius around the Operational Control Center, AFWTF, Roosevelt Roads, Puerto Rico, per reference (b).

(6) The Navy Frequency Coordinator, Western US (NFCWUS) at Point Mugu, CA, is responsible for the coordination of USN and USMC frequency requirements in Alaska and the states west of Minnesota, Iowa, Kansas, Oklahoma, and Texas, and will report to CINCPACFLT in matters relating to this function. In addition, the Commander, Pacific Missile Test Center (PMTC), serves as the DOD Western AFC, providing staff and technical support for frequency assignments at the test/training range, for a 200-mile radius around PMTC Headquarters, and the area of California south of 37° 30' N, as specified in reference (b). In addition:

(a) Naval Communication Stations (NAVCOMMSTAs) San Diego, CA, and Puget Sound, WA, and Naval Telecommunications Center, Oakland, CA serve as local area NFCWUS representatives to assist with US&P non-fleet related frequency assignments.

(b) NAVCOMMSTAs San Diego and Stockton serve as NAVCAMS EASTPAC (Wahiawa) representatives to assist with fleet-related (ship-shore-ship, air-ground, broadcast) frequency assignments.

(7) NAVCAMS MED (Naples) shall assist fleet commanders in day-to-day coordination of the use of fleet frequency assets, and coordinate these frequencies through USCINCEUR to the JFP.

(8) The NAVCAMS EASTPAC (Wahiawa), on behalf of Commander in Chief, U.S. Pacific Fleet (CINCPACFLT), shall coordinate frequency use matters in the Eastern Pacific area, including the use of operational fleet ship-shore-ship, fleet air-ground, and fleet broadcast frequencies employed at NAVCOMMSTA's San Diego and Stockton, in addition to assisting fleet commanders in the day-to-day coordination of the use of fleet frequency assets.

(9) COMTHIRDFLT, on behalf of CINCPACFLT, coordinates frequency use matters for communications and navigational aids (LF, MF, UHF homers, TACAN channels, and sonobuoy/MCJR channels) in the THIRDFLT area of responsibility in international waters.

(10) NAVCAMS WESTPAC (Guam), on behalf of CINCPACFLT, shall coordinate frequency use matters in the Western Pacific area, including the use of operational fleet ship-shore-ship, fleet air-ground, and fleet broadcast frequencies employed at NAVCOMMSTA Diego Garcia, NAVCAMS WESTPAC Guam, NAVCOMMSTA Harold E. Holt, NAVCOMMSTA Japan, and NAVCOMMSTA Philippines. NAVCOMMSTA Philippines serves as primary alternate to NAVCAMS WESTPAC (Guam) in frequency management responsibilities. NAVCOMMSTAs Diego Garcia, Harold E. Holt, Japan, and Philippines exercise regional frequency coordination functions for NAVCAMS WESTPAC. In addition, NAVCAMS WESTPAC assists fleet commanders in day-to-day coordination of the use of fleet frequency assets.

(11) COMSEVENTHFLT, on behalf of CINCPACFLT, maintains a frequency pool for ship/ship, ship/air, and air/air transmissions in international waters and airspaces in the SEVENTHFLT area of responsibility.

8. Action

a. Commands and activities shall exercise responsibilities set forth in paragraph 7.

b. System developers shall ensure that a CNO approved frequency allocation and associated approval of waivers are made essential documents in the procurement file for the development and/or acquisition of C-E equipment, and shall report on compliance with the requirements of this directive during meetings of the Sponsor Procurement Board (SPB).

c. The Naval Inspector General shall examine and report on compliance with the requirements of this directive in the course of command and administrative inspections.

d. The Director of Research and Development Requirements, Test and Evaluation shall review for compliance with the requirements of this directive during Naval Acquisitions Review Board (NARB) presentations.

e. Electromagnetic Interference (EMI) to USN and USMC C-E equipments and weapon systems shall be reported per fleet commander directives, and references (g) and (j).

f. Designated USN and USMC shore activities shall report radio frequency use below 30 MHz per reference (k), as outlined in reference (g).

g. Fleet commanders shall ensure that radio frequencies used within their areas of responsibility are coordinated and authorized.

g. Commanders of USN and USMC installations and activities shall:

(1) Ensure that frequency allocations are approved by CNO (OP-941) before buying C-E equipment.

(2) Ensure that only assigned radio frequencies are used, and that frequency assignments are kept current.

(3) Ensure that provisions for use of specific radio frequencies by military or nonmilitary tenant activities on their installations are specifically included in a host-tenant agreement, or in a Base Operating System (BOS) contract.

9. Form. DD 1494 (Rev 2-87), S/N 0102-LF-001-4941, is available in the Navy supply system, per NAVSUP P-2002.

Lawrence Layman

LAWRENCE LAYMAN
By direction

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ABBREVIATIONS AND ACRONYMS

ACP	Allied Communications Publication
AFC	Area Frequency Coordinator
AFWTF	Atlantic Fleet Weapons Training Facility
BF	Battle Force
C-E	Communications-Electronics
CINC	Commander in Chief
CINCLANTFLT	Commander in Chief, U.S. Atlantic Fleet
CINCPACFLT	Commander in Chief, U.S. Pacific Fleet
CNO	Chief of Naval Operations
COMNAVTELCOM	Commander, Naval Telecommunications Command
COMSPAWARSYSCOM	Commander, Space and Naval Warfare Systems Command
DOD	Department of Defense
DOD DIR	Department of Defense Directive
DON	Department of Navy
ECAC	Electromagnetic Compatibility Analysis Center
ECAC CM	Marine Corps Deputy Director, ECAC
ECAC CN	Navy Deputy Director, ECAC
ECM	Electronic Countermeasures
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
E^3	Electromagnetic Environmental Effects
FACTS	Frequency Assignment Computer Terminal System
FAS	Frequency Assignment Subcommittee
FCCB	FACTS Configuration Control Board
GHz	Gigahertz
IRAC	Interdepartment Radio Advisory Committee
JFMO LANT	Joint Frequency Management Office, Atlantic
JFP	Joint Frequency Panel of the MCEB
MCEB	Military Communications-Electronics Board
MCJR	Multi-Channel Jezebel Repeater
MED	Mediterranean
MHz	Megahertz
MIDLANT AFC	Middle Atlantic Area Frequency Coordinator
NARB	Naval Acquisition Review Board
NAVEMSCEN	Naval Electromagnetic Spectrum Center
NAVCAMS EASTPAC	Naval Communications Area Master Station, Eastern Pacific
NAVCAMS LANT	Naval Communications Area Master Station, Atlantic
NAVCAMS MED	Naval Communications Area Master Station, Mediterranean
NAVCAMS WESTPAC	Naval Communications Area Master Station, Western Pacific
NAVCOMMSTA	Naval Communications Station
NFCWUS	Navy Frequency Coordinator Western United States
NIB	Not-to-interfere basis
NME	Naval Material Establishment

NOTAL	Not to All
NTIA	National Telecommunications and Information Administration
NTP	Naval Telecommunications Procedures
OPNAV	Staff of the Chief of Naval Operations
OPNAVINST	Staff of the Chief of Naval Operations Instruction
PMTC	Pacific Missile Test Center
RF	Radio Frequency
SFAF	Standard Frequency Action Format
SPB	Sponsor Procurement Board
SPS	Spectrum Planning Subcommittee
SYSCOM	Systems Command
THz	Terahertz
USMC	United States Marine Corps
USN	United States Navy
US&P	United States and Possessions
USCINCLANT	United States Commander in Chief, Atlantic
USCINCEUR	Unites States Commander in Chief, Europe
USMCEB	United States Military Communications-Electronics Board
WSA&E	Warfare Systems Architecture and Engineering

instruction ... any telephone communication ... 3. DEFINITIONS. For the purpose of this

PROCEDURES FOR OBTAINING FREQUENCY ALLOCATIONS WITHIN THE DEPARTMENT OF THE NAVY

1. An application for Frequency Allocation (DD 1494) will be prepared, marked for the correct stage of procurement, and submitted to CNO (OP-941F):

a. As early as possible during concept formulation (Stage One) and during demonstration and validation (Stage Two).

b. When equipment development progresses to a full scale development stage from the experimental or research stage (Stage Three).

c. When production of an operational equipment or system is required (Stage Four).

d. When procurement of a commercial equipment or system for military use is being planned (Stage Four).

e. When a change occurs in any of the stated conditions of electromagnetic parameters of an equipment for which a frequency allocation was previously approved, or is pending, with regard to equipment characteristics, nomenclature, location, operational environment, or intended use or purpose. A letter may be used to modify a previously approved allocation.

2. Instructions for completing the application are located on the reverse sides of the pages of the DD Form 1494 and in reference (f). Data submitted should be as complete as possible. For commercial, off-the-shelf procurement, include the specifications given by the manufacturer.

3. A determination of the EMC of the proposed system in its intended electromagnetic environment shall be conducted by the developing activity. A copy of the findings shall accompany each Stage Three allocation submission.

4. If a deviation from an EMC standard parameter is proposed, a request for waiver and justification (economic, technical, schedule) shall be included. When a departure from the National or International Tables of Frequency Allocation is proposed, additional justification supporting the proposed frequency band shall be included. The technical justification must show that the proposed out-of-band system will not degrade the EMC of the current environment.

5. When equipment is proposed for use outside of the US&P, the developing activity shall take action, per OPNAVINST 5510.48J, to obtain approval for release of frequency allocation data needed

to coordinate the use of the equipment within the territories of the host nation(s). A statement authorizing disclosure of equipment data should be provided on the DD Form 1494 and should list which items are releasable to which countries.

6. Assistance in preparing and submitting the Applications for Equipment Frequency Allocation (DD Form 1494) may be obtained from the designated EMC or electromagnetic environmental effects (E^3) office of the originating command. Direct liaison is encouraged with CNO (OP-941F) or the Naval Electromagnetic Spectrum Center, which advises and assists the CNO in the frequency allocation approval process, to select appropriate frequency bands, and to discuss system developments of a highly sensitive or unusual nature.

DON FREQUENCY COORDINATORS FOR U. S.

STATE	NAVY	STATE	NAVY
Alabama	1	Montana	2
Alaska	2	Nebraska	2
Arizona	2, a	Nevada	2, a
Arkansas	1	New Hampshire	1
California	2, b	New Jersey	1
Colorado	2, a	New Mexico	2, a
Connecticut	1	New York	1
Delaware	1	North Carolina	1
Florida	1, a	North Dakota	2
Georgia	1	Ohio	1
Hawaii		Oklahoma	1
Idaho	2	Oregon	2
Illinois	1	Pennsylvania	1
Indiana	1	Rhode Island	1
Iowa	1	South Carolina	1
Kansas	1	South Dakota	2
Kentucky	1	Tennessee	1
Louisiana	1	Texas	1
Maine	1	Utah	2, a
Maryland	1	Vermont	1
Massachusetts	1	Virginia	1
Michigan	1	Washington	2
Minnesota	1	West Virginia	1
Mississippi	1	Wisconsin	1
Missouri	1	Wyoming	2

Notes:

1. Joint Frequency Management and Spectrum Engineering Office Atlantic (JFMO LANT), Naval Base Norfolk, Building N26, Norfolk, VA 23511-6897. (Note c)

2. Navy Frequency Coordinator Western U. S. (NFCWUS), Point Mugu, CA 93042. (Note c)

3. Naval Communications Area Master Station, Eastern Pacific (NAVCAMS EASTPAC), Honolulu, Wahiawa, HI 96786.

a. In some areas, the Navy coordinator must also coordinate frequency assignments with other government and/or DOD frequency coordinators such as Federal Aviation Administration, DOD AFC White Sands Missile Range (WSMR), AFC MIDLANT, and DOD AFCs Gulf and Eastern.

b. NAVCOMMSTA's San Diego and Stockton coordinate fleet ship-shore-ship, fleet air-ground, and fleet broadcast frequency assignments for NAVCAMS EASTPAC.

c. JFMO LANT and NFCWUS utilize local USN area frequency coordinators in support of frequency assignment coordination in certain areas, directed by reference (g).